

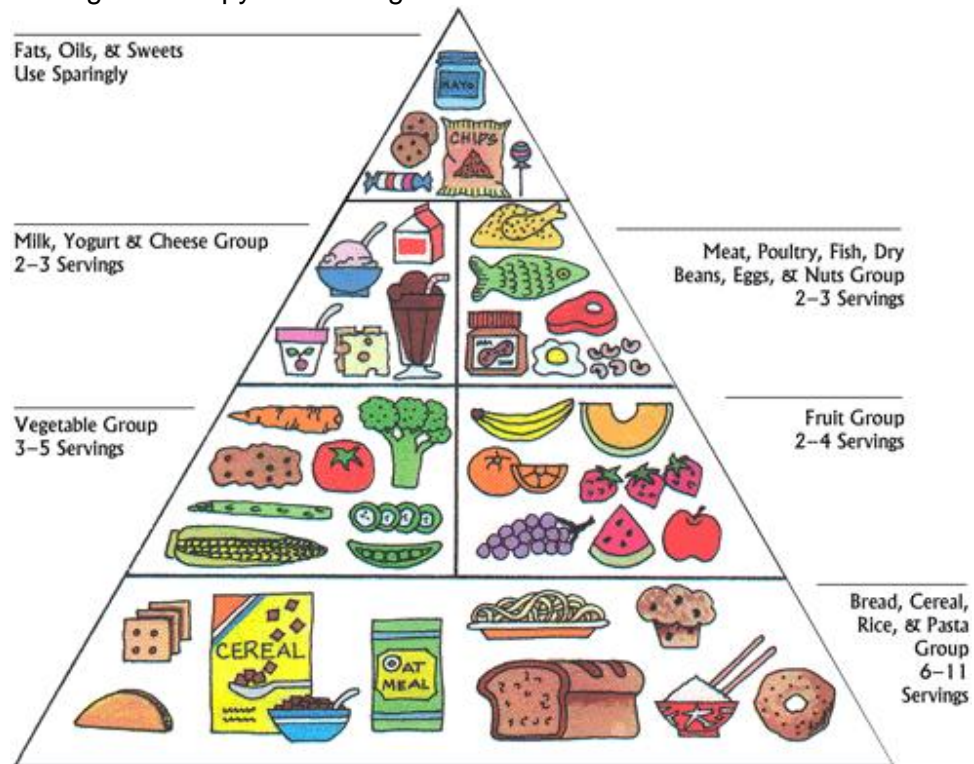
Body Science: Healthy Habits (K – 2nd grades) Pre-Visit Activities

Vocabulary List and Student Definitions (early elementary level)

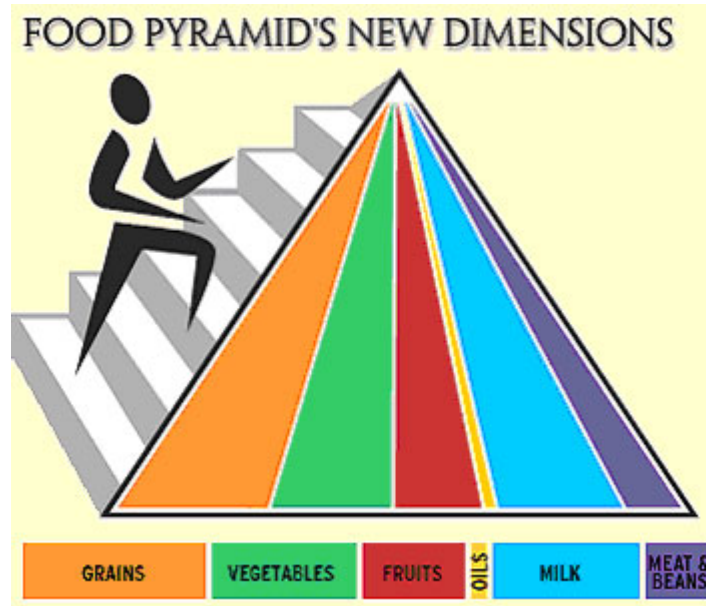
- **Food:** source of nutrients
- **Grain:** small seeds; cereals
- **Living:** alive; needs food and water for energy
- **Non-Living:** not alive
- **Plant:** living thing that grows in soil and makes its own food
- **Animal:** living thing that gets food from other animals or plants
- **Vegetable:** a plant raised to be eaten
- **Fruit:** part of a plant that grows where the flower used to be
- **Oil:** fats that are liquid at room temperature
- **Milk:** a white liquid made by female mammals that babies and people drink
- **Meat:** animal flesh used as food
- **Beans:** seeds (and sometimes seed coverings, or pods) of plants
- **Protein:** an important nutrient that helps build the body

Teacher Background and Supporting Information

1. What is the Food Pyramid?
 - a. The **Food Pyramid** was developed by the US Department of Agriculture (USDA) to help everyone have a better understanding of what to eat.
 - b. The original food pyramid design looks like this:



ii. The new pyramid, introduced a few years ago looks like this:



1. The new pyramid is designed to show youth that it is important to be active in addition to following a healthy diet.
2. The new pyramid also recognizes that not *all* foods in any of the groups are healthy. It is important to eat more of the good **grains** or vegetables than the bad.

iii. We now have what's called "My Plate" a new and even easier way to learn how to eat healthy:



- c. Anything that is **living** must have food to eat and water to drink. **Non-living** things do not need to eat or drink.
 - i. **Plants** make their own food.
 - ii. **Animals** get their food from plants and/or other animals.

2. Measurements & Comparisons:

- a. $\frac{1}{2}$ cup = hockey puck
- b. 1 cup = baseball

3. What are the Food Groups?

a. **Grains:** Grasses grown for their fruit's seeds.

- i. Examples of good grains: rice, wheat, rye, barley, millet, oats, quinoa, corn.
- ii. Examples of good grain products: brown rice, whole wheat bread, oatmeal.
- iii. Examples of not-so-good grain products: white rice, donuts, cereal with enriched flour.
- iv. Why?
 1. Enriched grains have very little nutritional value
 2. Pastries are often loaded with butter or are fried
- v. The average 6 year old should eat approximately 5 ounces of grains a day; at least half should be **whole grains**.
 3. Whole grains are grains that have their outer shell left on. The outer shells provide fiber, vitamins, and minerals.
 4. Examples: brown rice, whole wheat flour, oatmeal, and popcorn
- vi. A single serving roughly equals:
 5. 1 regular size piece of bread (about the size of a cd)
 6. ½ cup hot cereal, like oatmeal
 7. 1 cup cold cereal, like Cheerios
 8. ½ cup of rice

b. **Vegetable:** a plant raised to be eaten

- i. Examples: spinach, carrots, sweet potatoes, green beans, potatoes, asparagus, onions, artichokes, squash, broccoli, mushrooms
- ii. Examples of good vegetable products: baked sweet potatoes, steamed green beans, spinach salad
- iii. Examples of not-so-good vegetable products: French fries, sweet potato casserole, fried mushrooms
- iv. Why?
 1. Fried vegetables have lots of oil
 2. Sweet potato casserole has lots of sugar
- v. The average 6 year old should eat approximately 1.5 cups of vegetables a day. Dark green and orange vegetables are best.
- vi. A single serving roughly equals:
 1. 1 cup of vegetable juice
 2. 1 cup of raw or cooked vegetables
 3. 2 cups of leafy vegetables like lettuce or spinach (the leaves have lots of space between them, so two cups equals one cup of other vegetables)
 4. One large sweet potato
 5. One medium white potato, with skin

c. **Fruit:** part of a plant that grows where the flower used to be. Fruits have seeds.

- i. Examples: apples, strawberries, peaches, plums, grapes, mangoes, kiwi, star fruit, papayas, guavas, cherries
- ii. Examples of good fruit products: fresh fruits, canned fruits in natural juice, low sugar applesauce, 100% fruit juice drinks

- iii. Examples of not-so-good fruits: fruit juices that are not 100% juice, canned fruits in syrup, black cherry ice cream
 1. Why?
 - a. Canned fruits in syrup and non-100% fruit juices are loaded with sugar
 - b. Fruity ice creams have lots of fat and sugar.
- iv. The average 6 year old should eat approximately 1.5 cups of fruit a day.
- v. A single serving roughly equals:
 1. 1 medium apple
 2. 1 cup low sugar applesauce
 3. 1 cup 100% fruit juice
 4. ½ cup of dried fruit

d. Oils: fats that are liquid at room temperature; they come from plants and animals (you will notice that this group is not shown on the new “my plate” diagram. The USDA decided in 2011 that oils would no longer be considered an actual food group). Because oils can contain essential nutrients a chart was constructed to inform us of how much we should consume in a day:

How much is my allowance for oils?

Some Americans consume enough oil in the foods they eat, such as:

- nuts
- fish
- cooking oil
- salad dressings

Others could easily consume the recommended allowance by substituting oils for some solid fats they eat. A person’s allowance for oils depends on age, sex, and level of physical activity. Daily allowances are shown in the chart.

Daily allowance*		
Children	2-3 years old	3 teaspoons
	4-8 years old	4 teaspoons
Girls	9-13 years old	5 teaspoons
	14-18 years old	5 teaspoons
Boys	9-13 years old	5 teaspoons
	14-18 years old	6 teaspoons
Women	19-30 years old	6 teaspoons
	31-50 years old	5 teaspoons
	51+ years old	5 teaspoons
Men	19-30 years old	7 teaspoons
	31-50 years old	6 teaspoons
	51+ years old	6 teaspoons

*These amounts are appropriate for individuals who get less than 30 minutes per day of moderate physical activity, beyond normal daily activities. Those

who are more physically active may be able to consume more while staying within calorie needs.

- i. Fats that are solid at room temperature should, in particular, be eaten in moderation. Examples: butter, lard, shortening, animal fat (suet, chicken fat, etc)
 - ii. Examples: olive oil, peanut oil. Some foods are also naturally high in oils, like avocados, mayonnaise, salad dressings, sardines, and nuts.
 - iii. Examples of good oil products: plant-based oils like olive oil and avocados. Plant-based oils have no cholesterol, but may have saturated fats, which are bad for us.
 1. Oils, even good oils, are only good in small quantities.
 - iv. Examples of not-so-good oil products: bakery products, potato chips, French fries, tortilla chips, fried chicken
 1. Why?
 - a. Baked goods often use saturated or hydrogenated fats like margarine and shortening.
 2. Fried foods often use solid fats like lard or saturated liquid fats like palm kernel oil.
 - v. Saturated fats are generally solids at room temperature; unsaturated fats are generally liquid at room temperature.
 - vi. The average 6 year old should eat no more than 4 teaspoonfuls of oil daily.
 - vii. "Extras" (fats and sugars) should be limited to 170 calories a day.
- e. **Milk/Dairy:** a white liquid produced by female mammals that babies and people drink.
- i. All fluids and many solids made with milk are considered dairy products
 - ii. Examples: milk, pudding, ice cream, ice milk, yogurt, cheese
 - iii. Examples of good milk/dairy products: skim or 1% milk, natural cheeses like cheddar and mozzarella, fat free/reduced sugar yogurt
 - iv. Examples of not-so-good milk/dairy products: ice cream, processed cheeses like American, chocolate milk
 1. Why?
 - a. Processed foods aren't as good for you as natural foods.
 - b. "Extras" (fats and sugars) are the extra calories in ice cream, chocolate milk, and other dairy products.
 - v. The average 6 year old should consume about 3 cups of dairy products daily.
 - vi. A serving roughly equals:
 1. 1 cup milk
 2. 1.5 oz of natural cheese
 3. 1 oz is approximately the size of two dominoes
 4. 2 oz of processed cheese
 5. 1 cup yogurt
 - vii. Those that are lactose intolerant still need dairy products. Hard cheeses and yogurts are generally lactose free or have low levels of lactose. Enzymes may be added to foods to remove the lactose.

People may also take pills that digest the lactose since their bodies no longer can.

- f. **Meat:** animal flesh used as food
 - i. **Beans:** seeds (and sometimes seed coverings, or pods) of plants
 - ii. Meats and beans have lots of **protein**.
 - 1. Protein definition: an essential nutrient that helps build the body
 - 2. Examples: chicken, eggs, beef, pork, seafood, nuts, beans, peas, fish
 - 3. Examples of good meats and beans: lean beef, skinless chicken, egg whites, bean burgers, shrimp, lobster, almonds
 - iii. Examples of not-so-good meats and beans: fatty beef or ham, chicken with the skin, fried chicken or steak, scrambled eggs (including yolk), fried seafood, tuna packed in oil, ham
 - 1. Why?
 - a. Meats that are only 70 – 85% lean have additional oil calories that are counted as “extras.”
 - b. Fried foods or meats packed in oil contain oils that add “extra” calories.
 - c. Egg whites are nutritious, but egg yolks are high in cholesterol. It is best to leave out at least some of the yolks when making foods calling for multiple eggs.
 - d. Ham is a processed meat and has a lot of sodium (salt).
 - iv. The average 6 year old should consume about 4 ounces of meat daily.
 - v. A serving roughly equals:
 - 1. ¼ cup of dry beans or tofu
 - 2. 1 slice of sandwich meat
 - 3. 1 egg
 - 4. 1 tablespoon of peanut, almond, or soy butter
 - 5. 1 ounce of meat

g. For a printable Food Pyramid, go to:

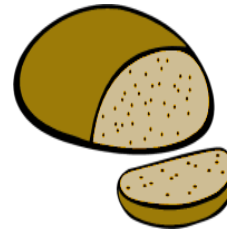
http://teamnutrition.usda.gov/Resources/mpk_poster2.pdf

Student Activities

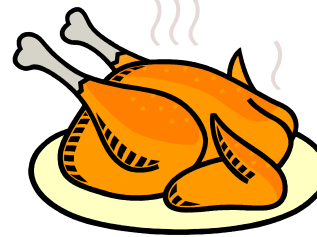
1. Using pictures from magazines or the Internet, have students do a picture sort of living versus non-living things. Be certain to include pictures of food, specifically fruits, vegetables, cows, pigs, chickens, eggs, milk, and other dairy products.
 - a. Have students further divide their “living” pile into plant and animal piles. Explain to them that the animal pile would be meats. The plant pile may include grains, fruits, and vegetables.
 - b. Student will likely have filed any dairy products in the “non-living” pile. Explain to them that they are correct – dairy products are not alive, but they did come from living animals.
2. Help your students become more familiar with food groups by having them complete the attached workbook.
3. Integrating Technology in Kindergarten: Go to the following link and locate the “How Your Body Works” game for Kindergarten. <http://classroom.ic-schools.net/sci-units/cells.htm>

This booklet
is to help me
prepare for my
field trip on

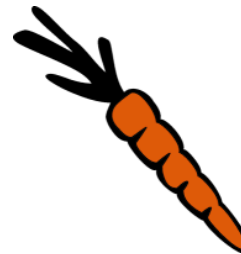
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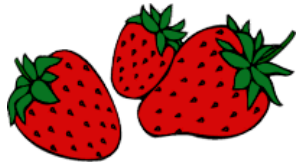
My Food Journal



By:



I have eaten the following fruits:



Strawberries



Banana



Kiwi



Lime



Lemon



Cherries



Pineapple



Watermelon



Raspberry



Apple



Pear

Today I ate:

_____ cups of vegetables

_____ cups of fruits

_____ teaspoons of oils

_____ cups of dairy/milk

_____ ounces of meat & beans.

Do you think you ate well today?



Do you know how to eat even better tomorrow?

I am _____ years old.

Each day I should eat about:

_____ cups of vegetables

_____ cups of fruits

_____ teaspoons of oils

_____ cups of dairy/milk

_____ ounces of meat & beans.



1 cup is about the size of a baseball.



$\frac{1}{2}$ cup is about the size of a hockey puck.

I want to try these fruits:

I have eaten _____ types of fruits today.

The fruits I ate today were:

I have eaten these vegetables:



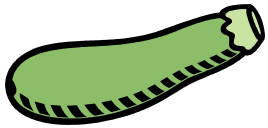
lettuce



carrots



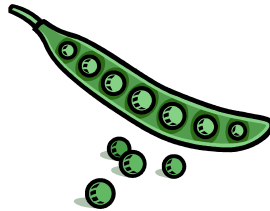
broccoli



zucchini



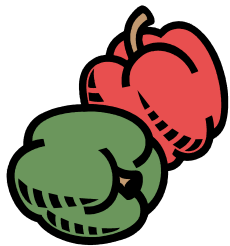
green beans



peas



asparagus



peppers



potatoes

I want to try these vegetables:

I have eaten _____ types of vegetables today.

The vegetables I ate today were:

